

SEQ LIST 886 WO (UBP8rp).txt
SEQUENCE LISTING

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<120> NOVEL UBP8rp POLYPEPTIDES AND THEIR USE IN THE TREATMENT OF PSORIASIS

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<160> 79

<170> PatentIn version 3.1

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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 Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
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SEQ LIST 886 WO (UBP8rp).txt

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9/37

SEQ LIST 886 WO (UBP8rp).txt

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 145 150 155 160

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 165 170 175

Ile Ser Leu Ile Ile Met Asp Ala Gln Arg Met Gln Asp Tyr Gln Asp
 180 185 190

10/37

SEQ LIST 886 WO (UBP8rp).txt

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
 195 200 205

Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
 210 215 220

Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
 225 230 235 240

Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
 245 250 255

Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Gly Gly Tyr Lys Asn Trp
 260 265 270

Phe Leu Cys Tyr Ser Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro
 275 280 285

Pro Gln His Gln Asn Glu Glu Leu Ser Ile Ser Leu Asp Phe Thr Tyr
 290 295 300

Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Glu Met Pro
 305 310 315 320

Pro Pro Pro Ile Lys Val Asp Glu Asp Ile Glu Leu Ile Ser Asp Gln
 325 330 335

Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro Leu Asn Ile Ser
 340 345 350

Ile Pro Val Glu Ser Val Ala Ala Ser Lys Ser Asp Val Ser Pro Ile
 355 360 365

Ile Gln Pro Val Pro Ser Ile Lys Asn Val Pro Gln Ile Asp His Thr
 370 375 380

Lys Lys Leu Ala Val Lys Leu Pro Glu Glu His Ile Ile Lys Ser Glu
 385 390 395 400

Ser Thr Asn His Glu Gln Gln Ser Pro Gln Asn Glu Lys Val Ile Pro
 405 410 415

Asp Cys Ser Thr Lys Pro Val Val Ser Ser Pro Thr Leu Met Leu Thr
 420 425 430

Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu Leu Met Glu
 435 440 445

SEQ LIST 886 WO (UBP8rp).txt

Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln Gly Lys Gln
 450 455 460

Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln Lys Glu Thr
 465 470 475 480

Arg Ser

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 <212> PRT
 <213> Homo sapiens

<400> 4

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 20 25 30

Thr Lys Ser Tyr Val His Ser Ala Leu Lys Ile Phe Lys Thr Ala Glu
 35 40 45

Glu Cys Arg Leu Asp Arg Asp Glu Glu Arg Ala Tyr Val Leu Tyr Met
 50 55 60

Lys Tyr Val Thr Val Tyr Asn Leu Ile Lys Lys Arg Pro Asp Phe Lys
 65 70 75 80

Gln Gln Gln Asp Tyr Phe His Ser Ile Leu Gly Pro Gly Asn Ile Lys
 85 90 95

Lys Ala Val Glu Glu Ala Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg
 100 105 110

Tyr Glu Glu Ala Glu Val Arg Lys Lys Leu Glu Glu Lys Asp Arg Gln
 115 120 125

Glu Glu Ala Gln Arg Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu
 130 135 140

Asp Gly Gly Thr Leu Ala Lys Gly Ser Leu Glu Asn Val Leu Asp Ser
 145 150 155 160

Lys Asp Lys Thr Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu
 165 170 175

Thr Lys Glu Lys Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met

12/37

SEQ LIST 886 WO (UBP8rp).txt
 185 190

180

Thr Asp Lys Asn Ile Ser Leu Ile Ile Met Asp Ala Arg Arg Met Gln
 195 200 205

Asp Tyr Gln Asp Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Glu
 210 215 220

Ala Ile Ser Pro Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro
 225 230 235 240

Asp Asp Ser Lys Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Val
 245 250 255

Val Leu Leu Asp Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr
 260 265 270

Thr Leu Arg Ser Leu Lys Asp Ala Leu Phe Lys Trp Glu Ser Lys Thr
 275 280 285

Val Leu Arg Asn Glu Pro Leu Val Leu Glu Gly Gly Tyr Glu Asn Trp
 290 295 300

Leu Leu Cys Tyr Pro Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro
 305 310 315 320

Pro Arg Arg Gln Asn Glu Glu Val Ser Ile Ser Leu Asp Phe Thr Tyr
 325 330 335

Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Gln Thr Pro
 340 345 350

Pro Ala Ser Ile Glu Val Asp Glu Asn Ile Glu Leu Ile Ser Gly Gln
 355 360 365

Asn Glu Arg Met Gly Pro Leu Asn Ile Ser Thr Pro Val Glu Pro Val
 370 375 380

Ala Ala Ser Lys Ser Asp Val Ser Pro Ile Ile Gln Pro Val Pro Ser
 385 390 395 400

Ile Lys Asn Val Pro Gln Ile Asp Arg Thr Lys Lys Pro Ala Val Lys
 405 410 415

Leu Pro Glu Glu His Arg Ile Lys Ser Glu Ser Thr Asn His Glu Gln
 420 425 430

Gln Ser Pro Gln Ser Gly Lys Val Ile Pro Asp Arg Ser Thr Lys Pro

SEQ LIST 886 WO (UBP8rp).txt
 440 445

435
 Val Val Phe Ser Pro Thr Leu Met Leu Thr Asp Glu Glu Lys Ala Arg
 450 455 460
 Ile His Ala Glu Thr Ala Leu Leu Met Glu Lys Asn Lys Gln Glu Lys
 465 470 475 480
 Glu Leu Arg Glu Arg Gln Gln Glu Glu Gln Lys Glu Lys Leu Arg Lys
 485 490 495
 Glu Glu Gln Glu Gln Lys Ala Lys Lys Lys Gln Glu Ala Glu Glu Asn
 500 505 510
 Glu Ile Thr Glu Lys Gln Gln Lys Ala Lys Glu Glu Met Glu Lys Lys
 515 520 525
 Glu Ser Glu Gln Ala Lys Lys Glu Asp Lys Glu Thr Ser Ala Lys Arg
 530 535 540
 Gly Lys Glu Ile Thr Gly Val Lys Arg Gln Ser Lys Ser Glu His Glu
 545 550 555 560
 Thr Ser Asp Ala Lys Lys Ser Val Glu Asp Arg Gly Lys Arg Cys Pro
 565 570 575
 Thr Pro Glu Ile Gln Lys Lys Ser Thr Gly Asp Val Pro His Thr Ser
 580 585 590
 Val Thr Gly Asp Ser Gly Ser Gly Lys Pro Phe Lys Ile Lys Gly Gln
 595 600 605
 Pro Glu Ser Gly Ile Leu Arg Thr Gly Thr Phe Arg Glu Asp Thr Asp
 610 615 620
 Asp Thr Glu Arg Asn Lys Ala Gln Arg Glu Pro Leu Thr Arg Ala Arg
 625 630 635 640
 Ser Glu Glu Met Gly Arg Ile Val Pro Gly Leu Pro Ser Gly Trp Ala
 645 650 655
 Lys Phe Leu Asp Pro Ile Thr Gly Thr Phe Arg Tyr Tyr His Ser Pro
 660 665 670
 Thr Asn Thr Val His Met Tyr Pro Pro Glu Met Ala Pro Ser Ser Ala
 675 680 685
 Pro Pro Ser Thr Pro Pro Thr His Lys Ala Lys Pro Gln Ile Pro Ala

SEQ LIST 886 WO (UBP8rp).txt
695 700

690

Glu Arg Asp Arg Glu Pro Ser Lys Leu Lys Arg Ser Tyr Ser Ser Pro
705 710 715 720

Asp Ile Thr Gln Ala Ile Gln Glu Glu Glu Lys Arg Lys Pro Thr Val
725 730 735

Thr Pro Thr Val Asn Arg Glu Asn Lys Pro Thr Cys Tyr Pro Lys Ala
740 745 750

Glu Ile Ser Arg Leu Ser Ala Ser Gln Ile Arg Asn Leu Asn Pro Val
755 760 765

Phe Gly Gly Ser Gly Pro Ala Leu Thr Gly Leu Arg Asn Leu Gly Asn
770 775 780

Thr Cys Tyr Met Asn Ser Ile Leu Gln Cys Leu Cys Asn Ala Pro His
785 790 795 800

Leu Ala Asp Tyr Phe Asn Arg Asn Cys Tyr Gln Asp Asp Ile Asn Arg
805 810 815

Ser Asn Leu Leu Gly His Lys Gly Glu Val Ala Glu Glu Phe Gly Ile
820 825 830

Ile Met Lys Ala Leu Trp Thr Gly Gln Tyr Arg Tyr Ile Ser Pro Lys
835 840 845

Asp Phe Lys Ile Thr Ile Gly Lys Ile Asn Asp Gln Phe Ala Gly Tyr
850 855 860

Ser Gln Gln Asp Ser Gln Glu Leu Leu Leu Phe Leu Met Asp Gly Leu
865 870 875 880

His Glu Asp Leu Asn Lys Ala Asp Asn Arg Lys Arg Tyr Lys Glu Glu
885 890 895

Asn Asn Asp His Leu Asp Asp Phe Lys Ala Ala Glu His Ala Trp Gln
900 905 910

Lys His Lys Gln Leu Asn Glu Ser Ile Ile Val Ala Leu Phe Gln Gly
915 920 925

Gln Phe Lys Ser Thr Val Gln Cys Leu Thr Cys His Lys Lys Ser Arg
930 935 940

Thr Phe Glu Ala Phe Met Tyr Leu Ser Leu Pro Leu Ala Ser Thr Ser

SEQ LIST 886 WO (UBP8rp).txt

945 950 955 960

Lys Cys Thr Leu Gln Asp Cys Leu Arg Leu Phe Ser Lys Glu Glu Lys
 965 970 975

Leu Thr Asp Asn Asn Arg Phe Tyr Cys Ser His Cys Arg Ala Arg Arg
 980 985 990

Asp Ser Leu Lys Lys Ile Glu Ile Trp Lys Leu Pro Pro Val Leu Leu
 995 1000 1005

Val His Leu Lys Arg Phe Ser Tyr Asp Gly Arg Trp Lys Gln Lys
 1010 1015 1020

Leu Gln Thr Ser Val Asp Phe Pro Leu Glu Asn Leu Asp Leu Ser
 1025 1030 1035

Gln Tyr Val Ile Gly Pro Lys Asn Asn Leu Lys Lys Tyr Asn Leu
 1040 1045 1050

Phe Ser Val Ser Asn His Tyr Gly Gly Leu Asp Gly Gly His Tyr
 1055 1060 1065

Thr Ala Tyr Cys Lys Asn Ala Ala Arg Gln Arg Trp Phe Lys Phe
 1070 1075 1080

Asp Asp His Glu Val Ser Asp Ile Ser Val Ser Ser Val Lys Ser
 1085 1090 1095

Ser Ala Ala Tyr Ile Leu Phe Tyr Thr Ser Leu Gly Pro Arg Val
 1100 1105 1110

Thr Asp Val Ala Thr
 1115

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<220>
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<210> 6
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SEQ LIST 886 WO (UBP8rp).txt

<220>
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<400> 7
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<210> 8
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<400> 9
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<210> 10
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<400> 11

SEQ LIST 886 WO (UBP8rp).txt

gaaagatgca cttttcaagt 20

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<210> 13
<211> 22
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gaccatgagt aactgatgta gg 22

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<220>
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<400> 14
catggtccca aagaagtat 19

<210> 15
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<400> 15
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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

<220>
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<400> 22
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<400> 27

SEQ LIST 886 WO (UBP8rp).txt

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<400> 28
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SEQ LIST 886 WO (UBP8rp).txt

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<210> 38
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SEQ LIST 886 WO (UBP8rp).txt

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<210> 39
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<210> 41
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SEQ LIST 886 WO (UBP8rp).txt 21

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<400> 44 20
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<210> 45
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SEQ LIST 886 WO (UBP8rp).txt

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 1 5 10 15

aag aaa aaa acc cat ccc cat caa aaa gtg ggc aaa gga tat aaa cag 96
 Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln
 20 25 30

aca ctt ctc aga gga aga cat tta cgt ggc caa gaa aca tat gaa aaa 144
 Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
 35 40 45

aag ctc aca cac gta tat gaa aca cct gat ttc aag caa cag cag gat 192

SEQ LIST 886 WO (UBP8rp).txt

Lys	Leu	Thr	His	Val	Tyr	Glu	Thr	Pro	Asp	Phe	Lys	Gln	Gln	Gln	Asp		
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tgc	ttc	cgt	tca	ata	ctt	gga	cct	gca	aac	atc	aaa	aaa	gcc	act	gga	240	
Cys	Phe	Arg	Ser	Ile	Leu	Gly	Pro	Ala	Asn	Ile	Lys	Lys	Ala	Thr	Gly		
65					70					75					80		
gaa	act	gaa	cga	ctc	tct	gaa	agc	ctt	aaa	cta	aga	tat	gaa	gaa	gtt	288	
Glu	Thr	Glu	Arg	Leu	Ser	Glu	Ser	Leu	Lys	Leu	Arg	Tyr	Glu	Glu	Val		
				85					90					95			
gaa	atc	tgg	aaa	aaa	ctt	gag	gaa	aag	gac	agg	cag	ggg	gaa	gca	cag	336	
Glu	Ile	Trp	Lys	Lys	Leu	Glu	Glu	Lys	Asp	Arg	Gln	Gly	Glu	Ala	Gln		
			100					105					110				
tgg	cta	caa	caa	aaa	agg	cag	gaa	aca	gga	aga	gag	gat	ggc	agc	acg	384	
Trp	Leu	Gln	Gln	Lys	Arg	Gln	Glu	Thr	Gly	Arg	Glu	Asp	Gly	Ser	Thr		
		115					120					125					
ttg	gct	aaa	gat	tct	ttg	gag	att	gta	ttg	gat	tcc	aaa	gac	aaa	acc	432	
Leu	Ala	Lys	Asp	Ser	Leu	Glu	Ile	Val	Leu	Asp	Ser	Lys	Asp	Lys	Thr		
	130					135					140						
caa	aag	agc	aat	ggc	gaa	aag	aat	gaa	aaa	tgt	gag	acc	aaa	gag	aaa	480	
Gln	Lys	Ser	Asn	Gly	Glu	Lys	Asn	Glu	Lys	Cys	Glu	Thr	Lys	Glu	Lys		
145				150						155					160		
gga	gca	atc	aca	gca	aag	gaa	cta	tac	aca	atg	atg	atg	gat	aaa	aac	528	
Gly	Ala	Ile	Thr	Ala	Lys	Glu	Leu	Tyr	Thr	Met	Met	Met	Asp	Lys	Asn		
				165					170					175			
atc	agc	ttg	att	ata	atg	cat	gct	caa	aga	atg	cag	tat	tat	cag	gat	576	
Ile	Ser	Leu	Ile	Ile	Met	His	Ala	Gln	Arg	Met	Gln	Tyr	Tyr	Gln	Asp		
			180					185					190				
tcc	tgt	att	tta	cat	tct	ctc	agt	gtt	cct	gaa	aaa	gcc	atc	agt	cca	624	
Ser	Cys	Ile	Leu	His	Ser	Leu	Ser	Val	Pro	Glu	Lys	Ala	Ile	Ser	Pro		
		195					200					205					
gga	gtc	act	gct	agc	tgg	att	gaa	gca	cac	ctc	cca	gat	gat	tct	ata	672	
Gly	Val	Thr	Ala	Ser	Trp	Ile	Glu	Ala	His	Leu	Pro	Asp	Asp	Ser	Ile		
	210					215					220						
gat	aca	tgg	aag	aag	agg	ggg	aat	gtg	gag	tat	atg	gta	ctt	ctt	gac	720	
Asp	Thr	Trp	Lys	Lys	Arg	Gly	Asn	Val	Glu	Tyr	Met	Val	Leu	Leu	Asp		
225					230				235						240		
tgg	ttt	agt	tct	gca	aaa	gat	tta	cag	att	gga	aca	aca	ctc	tgg	cat	768	
Trp	Phe	Ser	Ser	Ala	Lys	Asp	Leu	Gln	Ile	Gly	Thr	Thr	Leu	Trp	His		
				245					250					255			
ctg	aaa	gat	gca	ctt	ttc	aag	tgg	gaa	aag	gga	ggc	tat	aaa	aac	tgg	816	
Leu	Lys	Asp	Ala	Leu	Phe	Lys	Trp	Glu	Lys	Gly	Gly	Tyr	Lys	Asn	Trp		
			260					265					270				
ttc	ttt	tgc	tat	tcc	cag	tat	aca	aca	aat	gct	aag	gtc	act	cca	ccc	864	
Phe	Phe	Cys	Tyr	Ser	Gln	Tyr	Thr	Thr	Asn	Ala	Lys	Val	Thr	Pro	Pro		
		275					280					285					
cca	caa	cac	cag	aat	gaa	gag	ttg	tct	atc	tca	ttg	gat	ttt	act	tat	912	
Pro	Gln	His	Gln	Asn	Glu	Glu	Leu	Ser	Ile	Ser	Leu	Asp	Phe	Thr	Tyr		
					295						300						
ccc	tca	ttg	gaa	gaa	tca	att	cct	tct	aaa	cct	gct	gcc	gag	atg	cca	960	

SEQ LIST 886 WO (UBP8rp).txt

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Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Glu Met Pro
305          310          315          320

cct cca cct ata gaa gtg gat gaa gac ata gaa ttg ata agt gat caa      1008
Pro Pro Pro Ile Glu Val Asp Glu Arg Ile Glu Leu Ile Ser Asp Gln
          325          330          335

ata agt gat aat gat caa aat gag agg aca gga cca ctg aat ata tca      1056
Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro Leu Asn Ile Ser
          340          345          350

att cca gtt gaa tca gtt gct gct tct aaa tct gat gtt tca ccc atc      1104
Ile Pro Val Glu Ser Val Ala Ala Ser Lys Ser Asp Val Ser Pro Ile
          355          360          365

att cag cca gtg cct agc ata aag aat gtt cca cag att gat cat act      1152
Ile Gln Pro Val Pro Ser Ile Lys Asn Val Pro Gln Ile Asp His Thr
          370          375          380

aaa aaa ctg gca gtc aaa ttg cct gaa gag cat ata atc aaa tct gaa      1200
Lys Lys Leu Ala Val Lys Leu Pro Glu Glu His Ile Ile Lys Ser Glu
          385          390          395

agt aca aat cat gag caa cag tct cct cag aat gaa aaa gtt att cct      1248
Ser Thr Asn His Glu Gln Gln Ser Pro Gln Asn Glu Lys Val Ile Pro
          405          410          415

gat tgt tcc gcc aag cca gta gtt tcc tct cca act ctc atg tta aca      1296
Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu Met Leu Thr
          420          425          430

gat gaa gaa aag gct cat att cat gca gaa act gct ctt cta atg gag      1344
Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu Leu Met Glu
          435          440          445

aaa aac aaa caa gaa aaa gaa ctt cag gaa aga cag caa ggg aaa cag      1392
Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln Gly Lys Gln
          450          455          460

aaa gaa act gag gag gga aga aca cga gca aaa agc caa aaa gaa aca      1440
Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln Lys Glu Thr
          465          470          475

aga agc tgc aga aaa tgaaattaca cagaagcaac aaaaagcaaa agaagaaatg      1495
Arg Ser Cys Arg Lys
          485

gagaagaaag aacgtgaaca ggccaagaaa gaggataaag aaatctcagc aaagaagggc      1555

aaagaaataa caagagtaaa aagacaaagt aaaagtgatc atgaaacctc tggtgccgag      1615

aagtctgtag aggacagggg gagaagatgt tcaaccccag aagtac      1661

<210> 53
<211> 485
<212> PRT
<213> Homo sapiens

<400> 53

Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr
1          5          10          15

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SEQ LIST 886 WO (UBP8rp).txt

Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln
 20 25 30

Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
 35 40 45

Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp
 50 55 60

Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly
 65 70 75 80

Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val
 85 90 95

Glu Ile Trp Lys Lys Leu Glu Glu Lys Asp Arg Gln Gly Glu Ala Gln
 100 105 110

Trp Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr
 115 120 125

Leu Ala Lys Asp Ser Leu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr
 130 135 140

Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
 145 150 155 160

Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met Met Asp Lys Asn
 165 170 175

Ile Ser Leu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp
 180 185 190

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
 195 200 205

Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
 210 215 220

Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
 225 230 235 240

Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
 245 250 255

Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Gly Gly Tyr Lys Asn Trp
 260 265 270

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<210> 54
<211> 1735
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
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SEQ LIST 886 WO (UBP8rp).txt

<223> Second splice variant of allele A9.1

<400> 54
atgatgagag ctcacatggt tgtttacaag gaacttaaac aaatttaca gaaaaaacc 60
catccccatc aaaaagtggg caaaggatat aaacagacac ttctcagagg aagacattta 120
cgtggccaag aaacatatga aaaaaagctc acacacgtat atgaaacgtg actgtttata 180
atcctatcca aaaaagacct gatttcaagc aacagcagga ttgcttccgt tcaatacttg 240
gacctgattt caagcaacag caggattgct tccgttcaat acttggacct gcaaacatca 300
aaaaagccac tggagaaact gaacgactct ctgaaagcct taaactaaga tatgaagaag 360
ttgaaatctg gaaaaaactt gaggaaaagg acaggcaggg ggaagcacag tggctacaac 420
aaaaaaggca ggaaacagga agagaggatg gcagcacgtt ggctaaagat tctttggaga 480
ttgtattgga ttccaaagac aaaacccaaa agagcaatgg tgaaaagaat gaaaaatgtg 540
agaccaaaga gaaaggagca atcacagcaa aggaactata cacaatgatg atggataaaa 600
acatcagctt gattataatg catgctcaaa gaatgcagta ttatcaggat tcctgtattt 660
tacattctct cagtgttctt gaaaaagcca tcagtccagg agtcactgct agctggattg 720
aagcacacct cccagatgat tctatagata catggaagaa gagggggaat gtggagtata 780
tggtacttct tgactggttt agttctgcaa aagatttaca gattggaaca acactctggc 840
atctgaaaga tgcacttttc aagtgggaaa agggaggcta taaaaactgg ttcttttgct 900
attcccagta tacaacaaat gctaaggtca ctccaccccc acaacaccag aatgaagagt 960
tgtctatctc attggatttt acttatccct cattggaaga atcaattcct tctaaacctg 1020
ctgccgagat gccacctcca cctatagaag tggatgaaga catagaattg ataagtgatc 1080
aaataagtga taatgatcaa aatgagagga caggaccact gaatatatca attccagttg 1140
aatcagttgc tgcttctaaa tctgatgttt caccatcat tcagccagtg cctagcataa 1200
agaatgttcc acagattgat cataactaaa aactggcagt caaattgcct gaagagcata 1260
taatcaaate tgaaagtaca aatcatgagc aacagtctcc tcagaatgaa aaagttattc 1320
ctgattgttc cgccaagcca gtagtttctt ctccaactct catgttaaca gatgaagaaa 1380
aggctcatat tcatgcagaa actgctcttc taatggagaa aaacaaacaa gaaaaagaac 1440
ttcaggaaaag acagcaaggg aaacagaaag aaactgagga gggaagaaca cgagcaaaaa 1500
gccaaaaaga aacaagaagc tgcagaaaat gaaattacac agaagcaaca aaaagcaaaa 1560
gaagaaatgg agaagaaaga acgtgaacag gccagaaaag aggataaaga aatctcagca 1620
aagaagggca aagaaataac aagagtaaaa agacaaagta aaagtgatca tgaaacctct 1680
ggtgccgaga agtctgtaga ggacaggggg agaagatgtt caaccccaga agtac 1735

<210> 55

SEQ LIST 886 WO (UBP8rp).txt

<211> 1238
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Third splice variant of allele A9.1

<220>
 <221> CDS
 <222> (1)..(1032)
 <223>

<400> 55
 atg atg aga gct cac atg ttt gtt tac aag gaa ctt aaa caa att tac 48
 Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr
 1 5 10 15
 aag aaa aaa acc cat ccc cat caa aaa gtg ggc aaa gga tat aaa cag 96
 Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln
 20 25 30
 aca ctt ctc aga gga aga cat tta cgt ggc caa gaa aca tat gaa aaa 144
 Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
 35 40 45
 aag ctc aca cac gta tat gaa aca cct gat ttc aag caa cag cag gat 192
 Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp
 50 55 60
 tgc ttc cgt tca ata ctt gga cct gca aac atc aaa aaa gcc act gga 240
 Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly
 65 70 75 80
 gaa act gaa cga ctc tct gaa agc ctt aaa cta aga tat gaa gaa gtt 288
 Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val
 85 90 95
 gaa atc tgg aaa aaa ctt gag gaa aag gac agg cag ggg gaa gca cag 336
 Glu Ile Trp Lys Lys Leu Glu Glu Lys Asp Arg Gln Gly Glu Ala Gln
 100 105 110
 tgg cta caa caa aaa agg cag gaa aca gga aga gag gat ggc agc acg 384
 Trp Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr
 115 120 125
 ttg gct aaa gat tct ttg gag att gta ttg gat tcc aaa gac aaa acc 432
 Leu Ala Lys Asp Ser Leu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr
 130 135 140
 caa aag agc aat ggt gaa aag aat gaa aaa tgt gag acc aaa gag aaa 480
 Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
 145 150 155 160
 gga gca atc aca gca aag gaa cta tac aca atg atg atg gat aaa aac 528
 Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met Met Asp Lys Asn
 165 170 175
 atc agc ttg att ata atg cat gct caa aga atg cag tat tat cag gat 576
 Ile Ser Leu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp
 180 185 190
 tcc tgt att tta cat tct ctc agt gtt cct gaa aaa gcc atc agt cca 624

SEQ LIST 886 WO (UBP8rp).txt

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Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
195                200                205

gga gtc act gct agc tgg att gaa gca cac ctc cca gat gat tct ata      672
Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
210                215                220

gat aca tgg aag aag agg ggg aat gtg gag tat atg gta ctt ctt gac      720
Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
225                230                235

tgg ttt agt tct gca aaa gat tta cag att gga aca aca ctc tgg cat      768
Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
245                250                255

ctg aaa gat gca ctt ttc aag tgg gaa aag tct cct cag aat gaa aaa      816
Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Ser Pro Gln Asn Glu Lys
260                265                270

gtt att cct gat tgt tcc gcc aag cca gta gtt tcc tct cca act ctc      864
Val Ile Pro Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu
275                280                285

atg tta aca gat gaa gaa aag gct cat att cat gca gaa act gct ctt      912
Met Leu Thr Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu
290                295                300

cta atg gag aaa aac aaa caa gaa aaa gaa ctt cag gaa aga cag caa      960
Leu Met Glu Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln
305                310                315

ggg aaa cag aaa gaa act gag gag gga aga aca cga gca aaa agc caa      1008
Gly Lys Gln Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln
325                330                335

aaa gaa aca aga agc tgc aga aaa tgaaattaca cagaagcaac aaaaagcaaa      1062
Lys Glu Thr Arg Ser Cys Arg Lys
340

agaagaaatg gagaagaaag aacgtgaaca ggccaagaaa gaggataaag aaatctcagc      1122

aaagaagggc aaagaaataa caagagtaaa aagacaaagt aaaagtgatc atgaaacctc      1182

tggtgccgag aagtctgtag aggacagggg gagaagatgt tcaaccccag aagtac      1238

<210> 56
<211> 344
<212> PRT
<213> Homo sapiens

<400> 56

Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr
1          5          10          15

Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln
20          25          30

Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
35          40          45

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SEQ LIST 886 WO (UBP8rp).txt

Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp
 50 55 60

Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly
 65 70 75 80

Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val
 85 90 95

Glu Ile Trp Lys Lys Leu Glu Glu Lys Asp Arg Gln Gly Glu Ala Gln
 100 105 110

Trp Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr
 115 120 125

Leu Ala Lys Asp Ser Leu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr
 130 135 140

Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
 145 150 155 160

Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met Met Asp Lys Asn
 165 170 175

Ile Ser Leu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp
 180 185 190

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
 195 200 205

Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
 210 215 220

Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
 225 230 235 240

Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
 245 250 255

Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Ser Pro Gln Asn Glu Lys
 260 265 270

Val Ile Pro Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu
 275 280 285

Met Leu Thr Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu
 290 295 300

SEQ LIST 886 WO (UBP8rp).txt

Leu Met Glu Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln
 305 310 315 320

Gly Lys Gln Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln
 325 330 335

Lys Glu Thr Arg Ser Cys Arg Lys
 340

<210> 57
 <211> 13
 <212> PRT
 <213> Artificial

<220>
 <223> Immunigenic peptide

<400> 57

Gln Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro
 1 5 10

<210> 58
 <211> 18
 <212> DNA
 <213> Artificial

<220>
 <223> /note="Description of artificial sequence: primer"

<400> 58
 gccacagcag gcatgatg 18

<210> 59
 <211> 15
 <212> DNA
 <213> Artificial

<220>
 <223> /note="Description of artificial sequence: primer"

<400> 59
 caagtgcttc tttcc 15

<210> 60
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> /note="Description of artificial sequence: primer"

<400> 60
 tgcccatctc ccaagaactc 20

<210> 61

SEQ LIST 886 WO (UBP8rp).txt

<211> 23
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 61
atgaaggaga acttccccaa ctt 23

<210> 62
<211> 18
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 62
cttagtgcct gtgacaaa 18

<210> 63
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 63
caaagacgtc ggcgaggtaa 20

<210> 64
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 64
gtcatcctgg agatcgacaa 20

<210> 65
<211> 17
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 65
gccaggctgg ctgcgga 17

<210> 66
<211> 20
<212> DNA
<213> Artificial

SEQ LIST 886 WO (UBP8rp).txt

<220>
<223> /note="Description of artificial sequence: primer"

<400> 66 20
gggccagctc attctcatac

<210> 67
<211> 26
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 67 26
agatgaggtc tcacttatca ggctgg

<210> 68
<211> 27
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 68 27
tctgtacttc tggggttgaa catcttc

<210> 69
<211> 23
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 69 23
catgatgaga gctcacatgt ttg

<210> 70
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 70 19
gccactggag aaactgaac

<210> 71
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 71

SEQ LIST 886 WO (UBP8rp).txt

gcaatcacag caaaggaac

19

<210> 72
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 72
tttggtttta gagggaggc

19

<210> 73
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 73
taaattctgat gtttcaccca

20

<210> 74
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 74
gttcctttgc tgtgattgc

19

<210> 75
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 75
acatcaaaaa agccactgg

19

<210> 76
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 76
tcgttcagtt tctccagtg

19

<210> 77

SEQ LIST 886 WO (UBP8rp).txt

<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 77 20
gaaagatgca cttttcaagt

<210> 78
<211> 33
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 78 33
gatagatctg tacttctggg gttgaacatc ttc

<210> 79
<211> 31
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 79 31
tctggatcca tgatgagagc tcacatgttt g